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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,343	07/10/2001	Larry R. Harris	EZM-001.01	8897

25181 7590 11/16/2004

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EXAMINER

LY, ANH

ART UNIT	PAPER NUMBER
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2162

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/902,343

Applicant(s)

HARRIS, LARRY R.

Examiner

Anh Ly

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4,6,8,14,16-38,40,41,43-45,49,55-57,65-68,71 and 78-93 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 4,6,8,14,16-38,40,41,43-45,49,55-57,65-68,71 and 78-93 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) *
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Request Continued Examination

1. The request filed on 09/07/2004 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/923,440 is acceptable and a RCE has been established. An action on the RCE follows.
2. Claims 1-3, 5, 7, 9-13, 15, 39, 42, 46-48, 50-54, 58-64, 69-70 and 72-77 are cancelled.
3. Claims 4, 6, 8, 14, 16-38, 40-41, 43-45, 49, 55-57, 65-68, 71 and 78-93 are pending in this application.

Claim Rejections - 35 USC § 102

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
4. Claims 14, 55 and 65 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 5,933,837 issued to Kung.

With respect to claim 14, Kung receiving the a query (received a query from the primary database engine: col. 5, lines 7-10 and see fig. 1)

based on the query and the respective first and second data formats, generating first and second customized queries (query manager translating the received query or customizing the query based on the format of data source: col. 2, lines 47-49); and

applying the first and second customized queries to the respective first and second data source (using the translating query to the heterogeneous subscribing databases: col. 2, lines 50-52 and abstract).

Claim 55 is essentially the same as claim 14 except that it is directed to a device rather than a method (micro-processor: col. 12, lines 65-67 and col. 15, lines 10-22), and is rejected for the same reason as applied to the claim 14 hereinabove.

Claim 65 is essentially the same as claim 14 except that it is directed to a computer product rather than a method, and is rejected for the same reason as applied to the claim 14 hereinabove.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4, 16-38, 40, 49, 56, 66-68 and 78-93 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,933,837 issued to Kung in view of US Patent No. 6,601,026 issued to Appelt et al (hereinafter Appelt).

With respect to claim 4, Kung discloses a method for searching first and second data sources as discussed in claim 1.

Kung teaches a database network having a primary database engine connected to a primary database and a plurality of heterogeneous subscribing database. A query manager connected to the database engine for generating queries translates queries based on a specified format for each of the heterogeneous subscribing databases. Kung does not teach wherein receiving the query includes receiving a HTTP message.

However, Appelt teaches HTTP (col. 6, lines 37-40).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kung with the teachings of Appelt by incorporating the use of HTTP message as a request query. The motivation being to search the textual documents stored in the database based on the natural language query or from a heterogeneous databases and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user.

With respect to claims 17-19, Kung discloses a method for searching first and second data sources as discussed in claim 1.

Kung teaches a database network having a primary database engine connected to a primary database and a plurality of heterogeneous subscribing database. A query manager connected to the database engine for generating queries translates queries based on a specified format for each of the heterogeneous subscribing databases. Kung does not teach text data sources stores at least one of text document, natural language query, keyword, relational operator.

However, Appelt teaches wherein receiving the query includes receiving at least one of at least one natural language query and at least one keyword (col. 3, lines 37-57, col. 6, lines 38-50 and col. 14, lines 62-67; also see col. 1, lines 30-35), wherein receiving the query includes receiving the query via a network (col. 3, lines 22-26 and col. 5, lines 5-19); wherein receiving the query includes receiving at least one relational operator (col. 16, lines 1-25 and also col. 1, lines 42-50).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kung with the teachings of Appelt by incorporating the use of HTTP message as a request query. The motivation being to search the textual documents stored in the database based on the natural language query or from a heterogeneous databases and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user.

With respect to claims 20-27, Kung teaches the first data format and the second data format are different data format (from the heterogeneous databases having different data format for each database: abstract).

Kung teaches a database network having a primary database engine connected to a primary database and a plurality of heterogeneous subscribing database. A query manager connected to the database engine for generating queries translates queries based on a specified format for each of the heterogeneous subscribing databases. Kung does not teach at least one column in at least one of the first and second data source, natural language query.

However, Appelt teaches at least one column (col. 6, lines 12-26 and lines 62-67 and col. 7, lines 1-32), wherein the query is a natural language query and generating first and second customized queries including translating the query from a first language to at least one distinct second language (col. 6, lines 12-27); wherein translating the query includes processing the query using a natural language processor (col. 5, lines 5-15 and col. 6, lines 12-27); wherein the natural language query includes performing a spell check (syntactic or grammar check: col. 8, lines 42-55 and col. 9, lines 28-51); and wherein the query includes performing a context evaluation of the query (col. 6, lines 12-27); wherein the query includes determining a data format of the data source (text format: col. 5, lines 5-15); wherein the query includes identifying at least one abbreviation in the natural language query (col. 9, lines 15-27); and wherein the query includes identifying at least one abbreviation in the data source (col. 9, lines 15-27).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kung with the teachings of Appelt by incorporating the use of HTTP message as a request query. The motivation being to search the textual documents stored in the database based on the natural language query or from a heterogeneous databases and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user.

With respect to claims 29-36, 38 and 40, Kung teaches the first data format and the second data format are different data format (from the heterogeneous databases having different data format for each database: abstract).

Kung teaches a database network having a primary database engine connected to a primary database and a plurality of heterogeneous subscribing database. A query manager connected to the database engine for generating queries translates queries based on a specified format for each of the heterogeneous subscribing databases. Kung does not teach at least one column in at least one of the first and second data source, natural language query.

However, Applet teaches identifying at least one word variation in at least one of the, first and second data sources and identifying at least one phrase variation in at least one of the first and second data sources (col. 8, lines 8-38); wherein identifying at least one code based on at least one of: the first data source and the second data source; generating at least one phonetic equivalent (col. 13, lines 10-20 and lines 40-

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50); identifying a Frequently Asked Question (FAQ) (col. 13, lines 10-20 and lines 40-50 and col. 3, lines 65-67 and col. 4, lines 1-12); at least one of the query, the first customized query, the second customized, first search results based on the first customized query, second search results based on the second customized query, and a time of query (col. 2, lines 50-58 and col. 4, lines 22-32; and col. 2, lines 50-58);, at least one of at least one identity and at least one privilege with the query (col. 4, lines 22-32 and col. 5, lines 5-35); performing at least one, filtering, of the search results 4eri based on at least one of the first and second customized queries (col. 2, lines 35-59); communicating, the first and second search results to a client includes generating at least one of a graph, a pie chart, a spreadsheet (spreadsheet software: col. 15, lines 5-10); and a histogram based on the first and second search results of the customized query; and communicating the first and second search results to a client includes at least one of generating at least one of: an email, and an instant-message, and a voice message (user's voice: col. 4, lines 22-34 and col. 13, lines 8-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kung with the teachings of Appelt by incorporating the use of HTTP message as a request query. The motivation being to search the textual documents stored in the database based on the natural language query or from a heterogeneous databases and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user.

With respect to claims 41, 43-45, Kung teaches the first data format and the second data format are different data format (from the heterogeneous databases having different data format for each database: abstract).

Kung teaches a database network having a primary database engine connected to a primary database and a plurality of heterogeneous subscribing database. A query manager connected to the database engine for generating queries translates queries based on a specified format for each of the heterogeneous subscribing databases. Kung does not teach at least one column in at least one of the first and second data source, natural language query.

However, Appelt teaches a natural language information querying system comprising a method for searching text document based n the natural language query (col. 2, lines 20-59). The query can be stated in a natural language such as English and the system has a capability to convert natural language into SQL query (col. 6, lines 20-27), and the relational database is executed by using SQL to extract the information (col. 6, lines 12-18), and the search result can be provided to a text-to-speech system which looks up each work in a dictionary to translate the text to speech for the user (col. 13, lines 38-45). Appelt does not explicitly teach for the respective first and second data format and the respective first and second data sources, and applying at least one of a SQL query and a search engine search expression (col. 6, lines 12-27); conditioning the application of the first and second customized query queries based on at least one of an identity and a profile associated with the query (col. 6, lines 38-61, col. 10, lines 65-67

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and col. 11, lines 1-38 and also see col. 2, lines 35-58, col. 6, lines 38-52 and col. 12, lines 36-48).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kung with the teachings of Appelt by incorporating the use of HTTP message as a request query. The motivation being to search the textual documents stored in the database based on the natural language query or from a heterogeneous databases and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user.

With respect to claims 16, 37, and 78-81, Kung discloses a method as discussed in claim 14.

Kung teaches a database network having a primary database engine connected to a primary database and a plurality of heterogeneous subscribing database. A query manager connected to the database engine for generating queries translates queries based on a specified format for each of the heterogeneous subscribing databases. Kung does not teach at least one column in at least one of the first and second data source, natural language query.

However, Appelt teaches wherein the text data source stores at least one document, at least one of a text file, and at least one file including program instructions (col. 4, lines 6, lines 12-61); communicating the first and second search results to a client includes generating a SGML document (markup language document such as XML

document: col. 6, lines 27-36); data sources store data relevant to the query; data sources include one or more of a text data source, a SGML data source, an HTML data source, an XML data source, and a SQL data source (col. 6, lines 27-36 and col. 6, lines 12-26); search results from the respective first and second data sources, and communicating the first and second search results to a client.; and converting the first and second search results to a single data format, and communicating the converted first and second search results to the client (col. 11, lines 38-65 and col. 4, lines 22-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kung with the teachings of Appelt by incorporating the use of HTTP message as a request query. The motivation being to search the textual documents stored in the database based on the natural language query or from a heterogeneous databases and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user.

With respect to claims 49 and 56, Kung discloses a method as discussed in claim 55.

Kung teaches a database network having a primary database engine connected to a primary database and a plurality of heterogeneous subscribing database. A query manager connected to the database engine for generating queries translates queries based on a specified format for each of the heterogeneous subscribing databases.

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Kung does not teach at least one column in at least one of the first and second data source, natural language query.

However, Appelt teaches at least one of at least one natural language query and at least one keyword (col. 3, lines 37-57, col. 6, lines 38-50 and col. 14, lines 62-67) and at least one data source. a SGML data source, an HTML data source, an XML data source, and SOL data source (col. 6, lines 27-36 and col. 6, lines 12-26).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kung with the teachings of Appelt by incorporating the use of HTTP message as a request query. The motivation being to search the textual documents stored in the database based on the natural language query or from a heterogeneous databases and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user.

With respect to claims 82-87, Kung discloses a method as discussed in claim 55.

Kung teaches a database network having a primary database engine connected to a primary database and a plurality of heterogeneous subscribing database. A query manager connected to the database engine for generating queries translates queries based on a specified format for each of the heterogeneous subscribing databases. Kung does not teach at least one column in at least one of the first and second data source, natural language query.

However, Appelt teaches data sources store data relevant to the query, a search engine in communication and a dictionary in communication, apply at least one of a SQL query and a search-engine search expression; communicate the first and second search results to a client, convert the first and second search results to a single data format, and communicate the converted first and second search results to the client and wherein the single data format includes an SGML format (col. 4, lines 6, lines 12-61; markup language document such as XML document: col. 6, lines 27-36; col. 6, lines 27-36 and col. 6, lines 12-26 and col. 11, lines 38-65 and col. 4, lines 22-32; and search query engine: col. 2, lines 60-67, col. 3, lines 1-36, also see fig. 1 and col. 5, lines 5-37).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kung with the teachings of Appelt by incorporating the use of HTTP message as a request query. The motivation being to search the textual documents stored in the database based on the natural language query or from a heterogeneous databases and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user.

With respect to claims 66-68, and 88-93, Kung discloses a method as discussed in claim 65.

Kung teaches a database network having a primary database engine connected to a primary database and a plurality of heterogeneous subscribing database. A query manager connected to the database engine for generating queries translates queries

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based on a specified format for each of the heterogeneous subscribing databases.

Kung does not teach at least one column in at least one of the first and second data source, natural language query.

However, Appelt teaches at least one of: at least one natural language query and at least one keyword, receive the query via a network, to receive a HTTP message (col. 3, lines 37-57, col. 6, lines 38-50 and col. 14, lines 62-67; col. 3, lines 22-26 and col. 5, lines 5-19; and col. 6, lines 37-40) and data sources store data relevant to the query, a search engine in communication and a dictionary in communication, apply at least one of a SQL query and a search-engine search expression; communicate the first and second search results to a client, convert the first and second search results to a single data format, and communicate the converted first and second search results to the client and wherein the single data format includes an SGML format (col. 4, lines 6, lines 12-61; markup language document such as XML document: col. 6, lines 27-36; col. 6, lines 27-36 and col. 6, lines 12-26 and col. 11, lines 38-65 and col. 4, lines 22-32; and search query engine: col. 2, lines 60-67, col. 3, lines 1-36, also see fig. 1 and col. 5, lines 5-37).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kung with the teachings of Appelt by incorporating the use of HTTP message as a request query. The motivation being to search the textual documents stored in the database based on the natural language query or from a heterogeneous databases and having a natural language interface handling commonly encountered natural language expressions, extracting the

topic of interest for the user and performing topical searches beyond the exact words entered by the user.

7. Claims 6, are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,933,837 issued to Kung in view of US Patent No. 6,601,026 issued to Appelt et al (hereinafter Appelt), and further in view of US Patent No. 6,446,064 issued to Livowsky.

With respect to claim 6, Kung in view of Appelt discloses a method as discussed in claim 14. Also Appelt teaches the system accepting query keyword from the user (col. 1, lines 30-35).

Kung and Appelt disclose substantially the invention as claimed. Kung and Appelt do not teach at least one synonym.

However, Livowsky discloses generating synonyms of the query (col. 4, lines 33-35).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kung in view of Appelt with the teachings of Livowsky by incorporating the use of generating synonyms of query. The motivation being to search the textual documents stored in the database based on the natural language query or from a heterogeneous databases and having a natural language interface handling commonly encountered natural language

expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user.

8. Claims 8, 28, 57 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,933,837 issued to Kung in view of US Patent No. 6,601,026 issued to Appelt et al (hereinafter Appelt), and further in view of US Patent No. 5,752,016 issued to Whittaker et al. (hereinafter Whittaker).

With respect to claims 8 and 28, Kung in view of Appelt discloses a method as discussed in claim 14. Also Appelt teaches the system accepting query keyword from the user (col. 1, lines 30-35).

Kung and Appelt disclose substantially the invention as claimed. Kung and Appelt do not teach at least one relationship between two rows and at least one relationship between two columns and at least one relationship between two rows and at least one relationship between two columns.

However, Whittaker discloses relational database and row headings and column headings or row header and column header as row information and column information of at least one database element (col. 2, lines 45-58, col. 3, lines 8-30 and col. 13, lines 22-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kung in view of Appelt with the teachings of Whittaker by incorporating the use of at least column headings or

row header. The motivation being to search the textual documents stored in the database based on the natural language query or from a heterogeneous databases and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user.

With respect to claim 57, Kung in view of Appelt discloses a device for searching as discussed in claim 55.

Kung and Appelt disclose substantially the invention as claimed. Kung and Appelt do not teach at least one relationship between two rows and at least one relationship between two columns and at least one relationship between two rows and at least one relationship between two columns.

However, Whittaker discloses relational database and row headings and column headings or row header and column header as row information and column information of at least one database element (col. 2, lines 45-58, col. 3, lines 8-30 and col. 13, lines 22-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kung in view of Appelt with the teachings of Whittaker by incorporating the use of at least column headings or row header. The motivation being to search the textual documents stored in the database based on the natural language query or from a heterogeneous databases and having a natural language interface handling commonly encountered natural language

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expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user.

With respect to claim 71, Kung in view of Appelt discloses a computer product for searching as discussed in claim 65.

Kung and Appelt disclose substantially the invention as claimed. Kung and Appelt do not teach at least one relationship between two rows and at least one relationship between two columns and at least one relationship between two rows and at least one relationship between two columns.

However, Whittaker discloses relational database and row headings and column headings or row header and column header as row information and column information of at least one database element (col. 2, lines 45-58, col. 3, lines 8-30 and col. 13, lines 22-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Kung in view of Appelt with the teachings of Whittaker by incorporating the use of at least column headings or row header. The motivation being to search the textual documents stored in the database based on the natural language query or from a heterogeneous databases and having a natural language interface handling commonly encountered natural language expressions, extracting the topic of interest for the user and performing topical searches beyond the exact words entered by the user.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Ly whose telephone number is (571) 272-4039 or via E-Mail: ANH.LY@USPTO.GOV. The examiner can normally be reached on TUESDAY – THURSDAY from 8:30 AM – 3:30 PM.

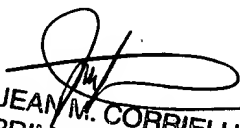
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene, can be reached on (571) 272-4107 or Primary Examiner Jean Corrielus (571) 272-4032.


Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: Central Fax Center (703) 872-9306


JEAN M. CORRIELUS
PRIMARY EXAMINER

ANH LY 
NOV. 9th, 2004